IN THE CLAIMS

Please amend the indicated claims as set forth below. A complete set of Claims are provided in accordance with the revised amendment format.

1. (Original) A multi-channel satellite uplink transmission system dividing an original digital signal into a plurality of digital subchannels and adding a common timing signal to each subchannel, the multi-channel uplink transmission system comprising:

a subchannel divider for transforming the original digital signal into the plurality of digital subchannel signals such that each digital subchannel signal contains at least some information unique to that subchannel signal and also such that a bit rate of each digital subchannel signal is lower than a bit rate of the original digital signal;

a timing generator for generating a periodic signal;

signal combining means, coupled to the timing generator and the subchannel divider, for adding the periodic signal to each subchannel signal within a bandwidth of each subchannel signal such that no additional bandwidth allocation is required to transmit the periodic signal, and in accordance therewith generating a plurality of modulated carrier signals;

upconverting means, coupled to the signal combining means, for translating a frequency of each modulated carrier signal to a frequency of a selected one of a plurality of satellite transponders;

amplifier means, coupled to the upconverting means, for increasing a power level of each translated modulated carrier signal; and

antenna means, coupled to the amplifier means, for directing a radio frequency wave corresponding to each translated modulated carrier signal toward a receiving antenna of each selected satellite transponder.

2. (Original) The uplink transmission system of claim 1 wherein at least some of the satellite transponders associated with the plurality of digital subchannel signals are located on one satellite.

3. (Original) The uplink transmission system of claim 1 wherein the periodic signal associated with any particular subchannel signal is transmitted to a single satellite associated with said any particular subchannel signal.

4. (Original) The uplink transmission system of claim 3 wherein at least some of the satellite transponders associated with the modulated carrier signals are located on one satellite.

9. (Original) A multi-channel satellite uplink transmission system dividing an original digital signal into a plurality of digital subchannels and adding a common timing signal to each subchannel, the multi-channel uplink transmission system comprising:

a subchannel divider for transforming the original digital signal into the plurality of digital subchannel signals such that each digital subchannel signal carries identical information at a same bit rate as the original digital signal;

a timing generator for generating a periodic signal;

signal combining means, coupled to the timing generator and the subchannel divider, for adding the periodic signal to each subchannel signal within a bandwidth of each subchannel signal such that no additional bandwidth allocation is required to transmit the periodic signal, and in accordance therewith generating a plurality of modulated carrier signals;

upconverting means, coupled to the signal combining means, for translating a frequency of each modulated carrier signal to a frequency of a selected one of a plurality of satellite transponders;

amplifier means, coupled to the upconverting means, for increasing a power level of each translated modulated carrier signal; and

antenna means, coupled to the amplifier means, for directing a radio frequency wave corresponding to each translated modulated carrier signal toward a receiving antenna of each selected satellite transponder.

10. (Original) The satellite uplink transmission system of claim 9 wherein at least some of the transponders associated with the plurality of digital subchannel signals are located on one satellite.

11. (Previously Amended) The satellite uplink transmission system of claim 9 wherein the periodic signal associated with a particular subchannel is transmitted on one satellite in a separate frequency allocation as an information-bearing carrier, so that when frequency-separated periodic signals are received by tuners, a relative propagation delay of the subchannels can be measured, an amount of delay in the plurality of delay means will be set in accordance with the relative propagation delays measured in the first step, and associated information-bearing subchannels will be received by the tuners.

12. (Original) The satellite uplink transmission system of claim 11 wherein at least some of the transponders associated with the plurality of subchannels are located on one satellite.

18. (Original) A multi-channel satellite uplink transmission system dividing an original analog signal into a plurality of analog subchannels and adding a common timing signal to each analog subchannel signal, the multi-channel uplink transmission system comprising:

a subchannel divider for transforming the original analog signal into the plurality of analog subchannel signals such that each digital subchannel signal contains at least some information unique to that subchannel signal;

a timing generator for generating a periodic signal;

signal combining means, coupled to the timing generator and the subchannel divider, for adding the periodic signal to each subchannel signal within a bandwidth of each subchannel signal such that no additional bandwidth allocation is required to transmit the periodic signal, and in accordance therewith generating a plurality of modulated carrier signals;

upconverting means, coupled to the signal combining means, for translating a frequency of each modulated carrier signal to a frequency of a selected one of a plurality of satellite transponders;

amplifier means, coupled to the upconverting means, for increasing a power level of each translated modulated carrier signal; and

antenna means, coupled to the amplifier means, for directing a radio frequency wave corresponding to each translated modulated carrier signal toward a receiving antenna of each selected satellite transponder.

19. (Previously Amended) The satellite uplink transmission system of claim 18 wherein at least some of the transponders associated with the plurality of subchannels are located on one satellite.

20. (Original) The satellite uplink transmission system of claim 18 wherein the plurality of subchannels contain identical information, and associated carriers are modulated identically.

21. (Original) The satellite uplink transmission system of claim 20 wherein at least some of the subchannels are located on one satellite.

22. (Previously Amended) The satellite uplink transmission system of claim 20 wherein the periodic signal associated with a particular subchannel is transmitted in four separate frequency allocations but to one satellite with the information-bearing carrier.

23. (Original) The satellite uplink transmission system of claim 22 wherein at least some of the transponders associated with the plurality of subchannels are located on said one satellite.

34. (Currently Amended) A multi-channel satellite uplink transmission system dividing an original multiplexed signal into a plurality of independent digital subchannels, the multi-channel uplink transmission system comprising:

a subchannel divider for transforming the original digital multiplexed signal into the plurality of independent digital subchannels such that an information content of a given independent component of the original digital multiplexed signal is contained entirely within one of the plurality of independent digital subchannels, and such that each of the digital subchannels has a lower bit rate than the original digital multiplexed signal;

modulator means, coupled to the signal combining means, for generating an intermediate frequency radio frequency carrier associated with each of the plurality of independent digital subchannels;

upconverting means, coupled to the signal combining means, for translating a frequency of each modulated carrier signal to a frequency of a selected one of a plurality of satellite transponders;

amplifier means, coupled to the upconverting means, for increasing a power level of each translated modulated carrier signal; and

antenna means, coupled to the amplifier means, for directing a radio frequency wave corresponding to each translated modulated carrier signal toward a receiving antenna of each selected satellite transponder.